

# **Analysis and quantification of microplastics in the stomachs of common dolphin (*Delphinus delphis*) stranded on the Galician coasts (NW Spain)**

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In Galicia, NW Spain, a stranding network run by the non-governmental organisation CEMMA since 1990. The common dolphin (*Delphinus delphis*) is the most frequently stranded cetacean and a total of more than 2600 common dolphins has been recorded on the 25 years that the stranding network has been operational. Most marine debris (composed mainly of plastics) has been recognised as a global threat to marine life because plastic ingestion can lead to injuries derived from chemical exposure. In this study we investigated the presence of plastic debris in the stomach content of 25 common dolphins stranded on the coast of Galicia between 2005 and 2010. To date, very few studies of this kind have been carried out in cetaceans even if studies of the digestive tract of several marine species have reported presence of marine debris. Based on the available literature of cetaceans and other species (fish, seabirds and turtles), we developed a protocol to study the presence of plastic debris in cetacean stomach contents. The stomach contents, routinely collected by the stranding network and fixed in alcohol, were rinsed through a set of nested sieves. Hard prey remains, fish bones, cephalopod mandibles, fish otoliths, eye lenses and crustacean remains were set aside to characterise the diet of the species. The remaining organic material was digested during three weeks using a solution of 10% KOH. All plastic items found in the stomachs were visually identified through a stereoscopic microscope. Microplastics were found in a high number of stomachs and, although its quantity varied greatly from one stomach to another, the total number of elements was generally low.